United States Patent [19]

Pape

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[54] **OPHTHALMOLOGICAL PROCEDURES**

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[52] **U.S. Cl.** **128/276**; 424/180

[58] **Field of Search** 128/276

[56] **References Cited**

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[57] **ABSTRACT**

This disclosure is directed to improved opthalmological surgical procedures on the human eyeball characterized by initially utilizing ultra-pure hyaluronic acid in the form of a solution containing the sodium salt thereof, in a sufficient concentration thereof to protect delicate eye tissue and cells, e.g., 0.5 to 1.0 wt. % and higher, and thereafter, significantly diluting the concentration thereof in the aqueous media (natural and/or synthetic) within the anterior segment of the eye viz, in situ, so as to arrive at a concentration of said sodium salt of hyaluronic acid of less than 0.5 wt. % and more usually from about 0.1 to about 0.3 wt. % prior to closure. Hence a significant dilution from the initial higher concentrations by a factor of at least about 2:1 and more usually from about 3:1 to about 10:1 is effected. Hence the concentration of said sodium hyaluronate in the natural and/or synthetic aqueous media left within the eyeball at the surgical site after closure of the procedure ranges from about 0.1 to about 0.3 wt. % in the anterior chamber.

21 Claims, 2 Drawing Figures